Appendix B
Blank Report and Handouts

Blank Report Form

The following is a blank report form that you can use to write your clearance reports. Photocopy it as needed, fill in the appropriate information, and attach appropriate reports and handouts.

1. Fill out the cover page:
   - Name of your firm with contact information and certification number
   - Name and certification number of the Lead Sampling Technician
   - Client and property information
   - Name, address, and certification number of the lab used
   - Summary table with results of the dust sampling. Only copy in the items that did not pass clearance.
2. Attach the following:
   - Dust Sampling Results form (from the lab)
   - Visual Assessment Form (from your visual assessment)
   - Understanding Your Report (included in this blank form)
   - Handouts (also included in this blank form)

Handouts

The handouts included in the blank report form are useful factsheets that can be given to clients to provide additional information about lead-based paint and how to address it. They can be given to clients before the exam and they can also be attached to reports as shown in Appendix C. The handouts include:

- Handout 1: What Are the Sources of Lead in Your Home?
- Handout 2: Cleaning Up
- Handout 3: Safe Repair and Maintenance of Lead-Based Paint
- Handout 4: Ongoing Monitoring and Maintenance
- Handout 5: Frequently Asked Questions

Name, Address and Phone Number of the Clearance Firm:

_____

_____

_____

_____

Firm certification number: _____

CLEARANCE EXAMINATION REPORT

Date of inspection:	
Lead Sampling Technician:	
Certification number:	
Property address:	
Apartment:	
Client name:	
Client address:	
Laboratory:	
Address:	
Telephone number:	
NLLAP number:	

SUMMARY RESULTS

Lead-contaminated dust was found in the following areas:

Location	Surface	Fg lead/ft^2

Signature: _____ Date: _____

VISUAL ASSESSMENT

Date of clearance:	
Clearance Technician:	
Client:	
Property address:	

Location	Identify visible areas of dust, paint chips, painted debris, and deteriorated paint. *(Note location: walls, ceiling, floors, doors, windows, trim, cabinets, etc.)*
Entry Area	
Living Room	
Dining Room	
Kitchen	
Common Area	
Bedroom #1	
Bedroom #2	
Bath #1	
Exterior	

Attach Laboratory Results Here.

Understanding Your Report

1. The Summary Results section lists all of the areas that failed the clearance examination. The entire area represented by the sample needs to be re-cleaned and then re-tested to see if the cleaning removed the contaminated dust.

   Written information on proper cleaning, monitoring, addressing sources of lead in the home, and safe repair of paint are included with this report. Further information can be obtained by contacting the National Lead Information Center Clearinghouse at 1-800-424-Lead (1-800-424-5323). You may consider hiring a risk assessor to evaluate lead hazards in your home and prepare a lead hazard control plan. Risk assessors in your area can be located through the Lead Listing at 1-888-Leadlist (1-888-532-3547).

2. The laboratory result forms attached to the report list all of the areas sampled inside and outside the dwelling and the laboratory analysis results for each sample.

3. The results of dust wipe samples are presented in micrograms per square foot (Fg/ft^2); soil samples are presented in micrograms per gram (Fg/g).

4. Areas that failed the clearance examination showed lead levels in dust or soil at or above Federal guidance, HUD standards, or state standards. The guidance and standards that were used for this clearance examination are:

Federal (EPA) Guidance for Lead in Dust

Floors: 100 Fg/ft^2
Interior window sill (stool): 500 Fg/ft^2
Window trough: 800 Fg/ft^2

HUD Standards for Lead in Dust*

Floors: 40 Fg/ft^2
Interior window sill (stool): 250 Fg/ft^2
Window trough: 800 Fg/ft^2

*For dwellings that receive funding from the U.S. Department of Housing and Urban Development (HUD), standards set by HUD may apply.

Handout #1
What Are the Sources of Lead in Your Home?

There are four major sources of lead that can pose a health hazard to people in and around the home. The sources are:

1. **Lead-based paint.** Lead-based paint can be found in housing built before 1978. It can be a hazard, especially if it deteriorates or, if it is disturbed during maintenance or normal wear and tear. If lead-based paint is peeling, chipping, chalking or cracking, it will create lead-contaminated dust that poisons children through normal hand-to-mouth activity. Children may also eat paint chips or chew on painted surfaces that are accessible to them, resulting in poisoning. Even lead-based paint that appears to be in good condition can be a problem if it is on surfaces that get a lot of wear and tear, such as door jambs and window tracks. It is important to remove the causes of deteriorating paint such as water leaks. Repair areas where lead paint is deteriorating by repainting using a good latex paint or lead sealer. (See Handout #3 on safe paint repair).

2. **Lead-contaminated dust.** Lead-contaminated dust is created when lead-based paint is sanded or scraped during maintenance or repair, or just through every day wear and tear. When maintenance or renovation takes place, the dust from these operations settles on surfaces such as floors, countertops, window sills and furniture. If the paint being worked on contains lead, the lead is deposited on surfaces as dust. Window tracks and door jambs can be another source of lead-contaminated dust. If these components rub during normal opening and closing, lead-contaminated dust can be created and deposited on surfaces throughout the home. Lead from work done on house exteriors can be tracked into the home, becoming an additional source of lead dust. After routine home maintenance or remodeling renovation and painting, the home should be thoroughly cleaned to remove any dust that may be left behind because it may contain lead. Lead dust sampling should then be performed to verify that the cleaning was effective.

3. **Lead-contaminated soil.** Soil can become contaminated when exterior lead-based deteriorates and gets into the soil. Homes near certain industries such as smelters or battery manufacturers may have lead into the soil as a result of these operations. Past use of leaded gasoline has also left lead deposits in our nation's soil. Playgrounds and gardens should not be placed in areas where the soil is contaminated with lead. Soil can be tracked into the home so it is important for workers to clean shoes or remove them before entering the home.

4. **Lead-contaminated drinking water.** Drinking water can be contaminated with lead, regardless of the water's source. Many faucets in homes and on store shelves contain leaded components that can leach lead into the water. Leaded solder in household piping and leaded components in well pumps have been in use for many years, and continue to leach lead into the drinking water of thousands of homes even today. Many public water delivery systems still have old lead piping through which the water must pass before it reaches the home. Water with a high pH has a tendency to leach more lead than water with a neutral pH, and warm water leaches more lead than cold. Allow cold water to run before drinking.

The following are sources of information about lead-based paint in your home:

- National Lead Information Center (NLIC) – 1-800-424-LEAD (1-800-424-5323). NLIC is a clearinghouse for information on lead. They provide copies of pamphlets, reports, and other resources.
- Safe Drinking Water Hotline – 1-800-426-4791. This hotline provides information and assistance to the public on safe drinking water.

Handout #2
CLEANING UP

It is very important to use proper cleanup procedures at the end of any remodeling, repainting, or maintenance job. Dust and paint chips left behind at the end of the job may contain lead and may endanger children. Have dust wipe samples collected at the end of the job to be sure that it is safe for children to return.

Cleaning the Work Area

1. **Pick Up Work Area**

- Pick up large chips with damp paper towel.
- Mist then push dust into dust pan.

2. **Pick Up Protective Sheeting**

- Clean off protective sheeting. Fold dirty side inward (dirty side to dirty side). Dispose of protective sheeting at the end of each job. Protective sheeting may be used gain within the same work area if it has not already been folded.

3. **Vacuum**

- HEPA vacuum all horizontal surfaces—slowly.
- Vacuum all ledges, sills, stools, molding tops, dusty surfaces, etc.
- Vacuum floor under work area. Use vacuum corner tools in corners, cracks of trim, and between floor boards.
- Vacuum floor with floor brush and carpet with a carpet tool.
- Important: Vacuum carpet very slowly.

4. **Mist and Scrub**

- Wet rag with detergent then wring out.
- Mist surface or rag as you clean.
- Lead needs scrubbing, not just wiping.

5. **Rinse Rag**

- Squeeze rag into empty side of split bucket. Rinse out rag. Squeeze into empty side. Repeat as needed.
- Change rinse water often. Use paper towels first if surfaces are very dirty. Replace rag when it looks dirty.
- Recommendation: Make a final pass with a HEPA vacuum.

Cleaning Floors

1. **Mist and Scrub**

- At start of cleaning, soak mop in detergent water then mist small area with detergent before mopping.
- Scrub with mop.
- Squeeze mop into empty bucket then rise in rinse water. Rinse often. Squeeze out and rinse again. Mop small areas at a time.

2. **Rinse**

- Repeat above process using clean water rather than detergent. When cleaning up a work site, use a new mop head for rinse stage.
- Recommendation: Make a final pass with a HEPA vacuum.

Handout #3

Safe Repair and Maintenance of Lead-Based Paint

Repairing, removing or maintaining lead-based paint improperly can spread lead-contaminated dust throughout the home. It is very important to use safe work methods when working on surfaces that may contain lead-based paint.

1. **Use the proper equipment**. You will need the proper tools and supplies to do the job correctly. In addition to tools such as scrapers and putty knives, it is important to have: A HEPA vacuum (a vacuum equipped with a very fine filter capable of filtering very small particles of lead); double sided mop bucket and mop; a good household detergent; ample disposable paper towels or rags; plastic sheeting; tack cloth; disposal waste bags; wet sanding blocks; and misting bottle filled with water.

2. **Set up the work area property**. The key is to contain the dust and debris created by the work. Create a barrier between the work area and the rest of the house. Use plastic sheeting over the doorways to seal off the area and protect the rest of the house from exposure. Work over a plastic drop cloth (never use cloth) to catch any debris created as a result of paint removal. Wear disposable shoe covers and remove them before exiting the work area, or step onto a tack cloth to remove paint chips and dust from the soles of shoes. Keep doors and windows closed to prevent dust from blowing and close off vents to central air or heating systems to avoid spreading dust to other parts of the house. Remove all furniture, or cover tightly with plastic sheeting. Do not allow children or pregnant women into the work area.

3. **Safe work practices**. Never remove lead-based paint by dry-sanding, dry scraping or burning. Use power sanders, grinders, planers only with a HEPA exhaust attachment. Using your misting bottle, wet the painted surface before sanding with a wet sanding block, or scraping. Be sure to work over a plastic drop cloth to catch any large particles. Do not eat, smoke or chew gum while working.

4. **Clean as you work**. Be sure to wet clean the areas you are working on as you go along. Though it will be necessary to clean the entire house at the end of the project, it is important to clean as you work in order to keep lead-contaminated dust from spreading. Clean using a good household detergent. Rinse your cleaning utensils in clean water.

5. **Proper disposal**. When the work is done, mist the plastic sheeting with water to keep down the dust. Roll the plastic sheet up, keeping the dirty side in. Pick up any paint chips or other debris that may have fallen elsewhere. Be sure to place all disposable items used in the repair and clean up into plastic waste bags. The bags must be tightly sealed and properly can be disposed of with the household trash*. Once the bags are sealed, do not reopen them.

6. **Have dust sampling done**. You should have dust sampling done after all renovations, painting, maintenance and cleaning activities. The results of this test will tell you if your work practices and final cleaning have been effective at removing lead-contaminated dust. Since lead dust levels in the home may change over time, it is strongly suggested that you perform dust testing periodically to help safeguard your family. If lead-contaminated dust levels begin to rise, re-inspect the home for deteriorating paint, repair where necessary repeating the steps outlined in this fact sheet, and be sure to wet clean thoroughly.

*Check with your State lead program to make sure that there is no regulation prohibiting this in your state.

Handout #4
Ongoing Monitoring and Maintenance

Take the following steps to make sure that paint is not deteriorating in your home and creating lead-contaminated dust and paint chips. This will help prevent children from being lead poisoned.

1. **Regularly Check Repairs for Deterioration, Paint Chips, and Dust**

   Property owners should regularly monitor painted surfaces where maintenance or improvements were performed. Check to see if:

   - New evidence of deterioration or paint failure is present.
   - The cause of the problem was corrected.
   - Lead dust hazards are present. Important: This can only be done by dust wipe sampling.

2. **Maintain Surfaces and Thoroughly Clean**

   Then:

   - Perform repairs, as needed, to maintain surfaces in a smooth and cleanable condition using safe work methods; and
   - Clean the area thoroughly using safe cleaning practices.

3. **Methods of Monitoring**

   Follow the these steps to check your work:

   - **Conduct Visual Check**. Look for deterioration, paint failure, dust and paint chips.
   - **Test for Lead Dust**. Have dust wipe samples taken to check for dust that may be contaminated with lead. A test is needed to determine when dust contains harmful amounts of lead.

4. **When to Monitor?**

   - **Annually**. Perform a visual check of past repairs and improvements involving painted surfaces.
   - **During Unit Turnover or Routine Maintenance**. Perform a visual check of past repairs and improvements involving painted surfaces.
   - **Every Two Years.** Get a dust wipe done at least every two years. This type of test is strongly recommended when a young child or pregnant women lives in the home.

5. **Why Is It Important to Monitor and Maintain Work?**

   Monitoring and maintenance helps:

   - Plan and implement maintenance tasks
   - Protect occupants and neighbors, particularly children, from lead exposure
   - Give owners, contractors, and residents a record of the condition of the unit

Handout #5:
Frequently Asked Questions about Clearance Examinations

Question	Answer
1. If lead-contaminated dust was found to be below Federal standards, does that mean that my property is "lead-free?"	No. Lead-based paint may be present. The lower levels can still be dangerous, and the sources of dust may still be present. Because the clearance tested for levels of lead in dust at the time samples were taken, the levels could change over time.
2. The results indicated that lead was undetectable, is my property "lead-free?"	No, only paint testing can determine for certain whether a property is free of lead-based paint. A clearance test only tests for the presence of lead in dust at the time of testing. Lead in dust could exist later.
3. Where did the dust come from?	Dust can come from many sources including renovation or maintenance work, lack of regular cleaning, deteriorated painted surfaces, or sources from outside the property. The test does not evaluate the quality or effectiveness of renovation or maintenance or the state of existing building conditions. Only a certified/licensed risk assessor is qualified to determine the source of lead dust. If the clearance test occurred right after maintenance or renovation work was done, a thorough re-cleaning and second clearance test may be the most prudent course of action.
4. What kind of cleaning will remove the lead dust?	See the advice on proper cleaning is also provided as Handout #2.
5. Who is responsible for removing the dust?	The property owner is ultimately responsible. If the owner has an agreement with a contractor who just performed work, the contractor may have to perform another cleaning and have the clearance test conducted again.
6. The clearance report shows lead in dust above the Federal standards. What should I do?	The answer to this question depends on whether clearance was performed for HUD-related work or not. For non-HUD projects: There are no regulatory requirements to respond to lead-contaminated dust. However, a proper re-cleaning is recommended to remove the lead-contaminated dust and make the home safe for occupancy. A second clearance test after re-cleaning is recommended. A property owner must disclose to future occupants or potential homebuyers the results of the clearance testing. If a second clearance test shows levels below the standards, this result should also be disclosed to show that you have dealt with the lead hazard. For HUD-related clearance. Proper re-cleaning followed by another clearance examination is required. The unit must be re-cleaned and clearance performed until the clearance shows no lead dust above the HUD standards. If the clearance examination identifies lead-contaminated dust, owners of rental properties must inform the occupants of the results of the clearance examinations even if the lead dust was successfully removed. It is important that occupants be aware that there has been lead-contaminated dust in the property because it could occur again in the future.
7. What should I do to monitor the lead-based paint hazards?	If paint is disturbed in the future, follow lead-safe work practices and conduct clearance again. If a child under six or a pregnant woman moves into the unit, consider having dust wipe samples collected and tested for lead-contaminated dust. If you want to know more about lead hazards or lead-based paint in the unit, consider hiring a certified risk assessor or lead paint inspector.
8. Should I keep the report? For how long?	The report should be kept as a reference in case issues arise later. For example, you may need it to comply with Federal disclosure requirements if you rent or sell your home. For work on HUD projects, the report documents whether a unit meets HUD requirements for clearance after rehabilitation or maintenance. In any case, it is most prudent to plan to keep the report indefinitely.

Appendix C
Model Report

Model Clearance Examination Report

This is a model clearance examination report for clearance done after renovation on a privately owned rented single-family home. The renovation was paid for by the property owner.

Renovation work was performed on the upstairs bedrooms and kitchen area. It included work on the windows. Because workers may have contaminated the upstairs hallway as they passed through the hallway on their way to and from the work areas, the clearance examination also included the hallway.

Note that this report includes:

- A cover page with summary
- Copies of all test results
- Handouts - fact sheets with useful additional information

Home Environmental Inspection Services, Inc.
345 Hammond Road
East Chicago, IN 12345
123-123-1235
345-789-5678 (fax)

Firm certification number: IN 78787

CLEARANCE EXAMINATION REPORT

Date of inspection:	8/5/99
Lead Sampling Technician:	Joe Smith
Certification number:	IN 77777
Property address:	78 East Main St., Apt. A Hammond, IN 89898
Apartment:	A
Client name:	Sally Jones
Client address:	80 East Main St. Hammond, IN 89898
Laboratory:	Analysis Services, Inc.
Address:	990 45th St., Suite 500 Gary, IN 44444
Telephone number:	222-222-2222
NLLAP number:	IN 999999

Summary Results

Dust above Federal standards was found in the following areas:

Location	Surface	Fg lead/ft^2
Small bedroom	Side facing window-- sill	600
Small bedroom	Floor	200
Kitchen	Window above sink-- sill	525
Second floor hallway	Floor	150

Signature: *Joe Smith*
Date: *8/12/99*

VISUAL ASSESSMENT FORM

Date of clearance:	8/5/99
Clearance Technician:	Joe Smith
Client:	Sally Jones
Property address:	78 East Main St., Apt. A Hammond, IN 89898

Location	Identify visible areas of dust, paint chips, painted debris, and deteriorated paint. *(Note location: walls, ceiling, floors, doors, windows, trim, cabinets, etc.)*
Entry Area	
Living Room	
Dining Room	
Kitchen	Window above sink; deteriorated paint on window sash; Client said deteriorated paint was tested and is not lead-based paint
Common Area	
Bedroom #1 Small bedroom (Street Side)	East window: deteriorated paint on lower sash; Client said deteriorated paint was tested and is not lead-based paint
Bedroom #2 Small bedroom (Back of the house)	Ok
Bath #1	
Exterior	

DUST SAMPLING RESULTS FORM

Date of clearance:	*8/5/99*
Lead Sampling Technician:	*Joe Smith*
Client:	*Sally Jones*
Property address:	*78 East Main St., Apt. A* *Hammond, IN 89898*

Sample #	Location	Surface	Dimensions of sample area	Fg Lead/ft^2	Above/ Below Standard
1-2	*Upstairs small bedroom*	*Front facing window- window sill*	*4" x 18"*	*17*	*Below*
1-3	*Upstairs small bedroom*	*Floor under window*	*12" x 12"*	*200*	*Above*
1-4	*Upstairs small bedroom*	*Side facing window- window sill*	*4" x 18"*	*600*	*Above*
2-1	*Second floor hallway*	*Floor*	*12" x 12"*	*150*	*Above*
3-1	*Staircase*	*Floor*	*12" x 12"*	*25*	*Below*
4-1	*Kitchen*	*Floor under window*	*12" x 12"*	*12*	*Below*
4-2	*Kitchen*	*Window above sink- window sill*	*4" x 18"*	*525*	*Above*
5-1	*First floor*	*Floor*	*12" x 12"*	*30*	*Below*

Understanding Your Report

1. The Summary Results section lists all of the areas that failed the clearance examination. The entire area represented by the sample needs to be re-cleaned and then re-tested to see if the cleaning removed the contaminated dust.

   Written information on proper cleaning, monitoring, addressing sources of lead in the home, and safe repair of paint are included with this report. Further information can be obtained by contacting the National Lead Information Center Clearinghouse at 1-800-424-Lead (1-800-424-5323). You may consider hiring a risk assessor to evaluate lead hazards in your home and prepare a lead hazard control plan. Risk assessors in your area can be located through the Lead Listing at 1-888-Leadlist (1-888-532-3547).

2. The laboratory result forms attached to the report list all of the areas sampled inside and outside the dwelling and the laboratory analysis results for each sample.

3. The results of dust wipe samples are presented in micrograms per square foot (Fg/ft^2); soil samples are presented in micrograms per gram (Fg/g).

4. Areas that failed the clearance examination showed lead levels in dust or soil at or above Federal guidance, HUD standards, or state standards. The guidance and standards that were used for this clearance examination are:

Federal (EPA) Guidance for Lead in Dust

Floors: 100 Fg/ft^2
Interior window sill (stool): 500 Fg/ft^2
Window trough: 800 Fg/ft^2

HUD Standards for Lead in Dust*

Floors: 40 Fg/ft^2
Interior window sill (stool): 250 Fg/ft^2
Window trough: 800 Fg/ft^2

*For dwellings that receive funding from the U.S. Department of Housing and Urban Development (HUD), standards set by HUD may apply.

Handout #1
What Are the Sources of Lead in Your Home?

There are four major sources of lead that can pose a health hazard to people in and around the home. The sources are:

1. **Lead-based paint.** Lead-based paint can be found in housing built before 1978. It can be a hazard, especially if it deteriorates or, if it is disturbed during maintenance or normal wear and tear. If lead-based paint is peeling, chipping, chalking or cracking, it will create lead-contaminated dust that poisons children through normal hand-to-mouth activity. Children may also eat paint chips or chew on painted surfaces that are accessible to them, resulting in poisoning. Even lead-based paint that appears to be in good condition can be a problem if it is on surfaces that get a lot of wear and tear, such as door jambs and window tracks. It is important to remove the causes of deteriorating paint such as water leaks. Repair areas where lead paint is deteriorating by repainting using a good latex paint or lead sealer. (See Handout #3 on safe paint repair).

2. **Lead-contaminated dust.** Lead-contaminated dust is created when lead-based paint is sanded or scraped during maintenance or repair, or just through every day wear and tear. When maintenance or renovation takes place, the dust from these operations settles on surfaces such as floors, countertops, window sills and furniture. If the paint being worked on contains lead, the lead is deposited on surfaces as dust. Window tracks and door jambs can be another source of lead-contaminated dust. If these components rub during normal opening and closing, lead-contaminated dust can be created and deposited on surfaces throughout the home. Lead from work done on house exteriors can be tracked into the home, becoming an additional source of lead dust. After routine home maintenance or remodeling renovation and painting, the home should be thoroughly cleaned to remove any dust that may be left behind because it may contain lead. Lead dust sampling should then be performed to verify that the cleaning was effective.

3. **Lead-contaminated soil.** Soil can become contaminated when exterior lead-based deteriorates and gets into the soil. Homes near certain industries such as smelters or battery manufacturers may have lead into the soil as a result of these operations. Past use of leaded gasoline has also left lead deposits in our nation's soil. Playgrounds and gardens should not be placed in areas where the soil is contaminated with lead. Soil can be tracked into the home so it is important for workers to clean shoes or remove them before entering the home.

4. **Lead-contaminated drinking water.** Drinking water can be contaminated with lead, regardless of the water's source. Many faucets in homes and on store shelves contain leaded components that can leach lead into the water. Leaded solder in household piping and leaded components in well pumps have been in use for many years, and continue to leach lead into the drinking water of thousands of homes even today. Many public water delivery systems still have old lead piping through which the water must pass before it reaches the home. Water with a high pH has a tendency to leach more lead than water with a neutral pH, and warm water leaches more lead than cold. Allow cold water to run before drinking.

The following are sources of information about lead-based paint in your home:

- National Lead Information Center (NLIC) – 1-800-424-LEAD (1-800-424-5323). NLIC is a clearinghouse for information on lead. They provide copies of pamphlets, reports, and other resources.
- Safe Drinking Water Hotline – 1-800-426-4791. This hotline provides information and assistance to the public on safe drinking water.

Handout #2
CLEANING UP

It is very important to use proper cleanup procedures at the end of any remodeling, repainting, or maintenance job. Dust and paint chips left behind at the end of the job may contain lead and may endanger children. Have dust wipe samples collected at the end of the job to be sure that it is safe for children to return.

Cleaning the Work Area

1. **Pick Up Work Area**

- Pick up large chips with damp paper towel.
- Mist then push dust into dust pan

2. **Pick Up Protective Sheeting**

- Clean off protective sheeting. Fold dirty side inward (dirty side to dirty side). Dispose of protective sheeting at the end of each job. Protective sheeting may be used gain within the same work area if it has not already been folded.

3. **Vacuum**

- HEPA vacuum all horizontal surfaces—slowly.
- Vacuum all ledges, sills, stools, molding tops, dusty surfaces, etc.
- Vacuum floor under work area. Use vacuum corner tools in corners, cracks of trim, and between floor boards.
- Vacuum floor with floor brush and carpet with a carpet tool.
- Important: Vacuum carpet very slowly.

4. **Mist and Scrub**

- Wet rag with detergent then wring out.
- Mist surface or rag as you clean.
- Lead needs scrubbing, not just wiping.

5. **Rinse Rag**

- Squeeze rag into empty side of split bucket. Rinse out rag. Squeeze into empty side. Repeat as needed.
- Change rinse water often. Use paper towels first if surfaces are very dirty. Replace rag when it looks dirty.
- Recommendation: Make a final pass with a HEPA vacuum.

Cleaning Floors

1. **Mist and Scrub**

- At start of cleaning, soak mop in detergent water then mist small area with detergent before mopping.
- Scrub with mop.
- Squeeze mop into empty bucket then rise in rinse water. Rinse often. Squeeze out and rinse again. Mop small areas at a time.

2. **Rinse**

- Repeat above process using clean water rather than detergent. When cleaning up a work site, use a new mop head for rinse stage.
- Recommendation: Make a final pass with a HEPA vacuum.

Handout #3
Safe Repair and Maintenance of Lead-Based Paint

Repairing, removing or maintaining lead-based paint improperly can spread lead-contaminated dust throughout the home. It is very important to use safe work methods when working on surfaces that may contain lead-based paint.

1. **Use the proper equipment**. You will need the proper tools and supplies to do the job correctly. In addition to tools such as scrapers and putty knives, it is important to have: A HEPA vacuum (a vacuum equipped with a very fine filter capable of filtering very small particles of lead); double sided mop bucket and mop; a good household detergent; ample disposable paper towels or rags; plastic sheeting; tack cloth; disposal waste bags; wet sanding blocks; and misting bottle filled with water.

2. **Set up the work area property**. The key is to contain the dust and debris created by the work. Create a barrier between the work area and the rest of the house. Use plastic sheeting over the doorways to seal off the area and protect the rest of the house from exposure. Work over a plastic drop cloth (never use cloth) to catch any debris created as a result of paint removal. Wear disposable shoe covers and remove them before exiting the work area, or step onto a tack cloth to remove paint chips and dust from the soles of shoes. Keep doors and windows closed to prevent dust from blowing and close off vents to central air or heating systems to avoid spreading dust to other parts of the house. Remove all furniture, or cover tightly with plastic sheeting. Do not allow children or pregnant women into the work area.

3. **Safe work practices**. Never remove lead-based paint by dry-sanding, dry scraping or burning. Use power sanders, grinders, planers only with a HEPA exhaust attachment. Using your misting bottle, wet the painted surface before sanding with a wet sanding block, or scraping. Be sure to work over a plastic drop cloth to catch any large particles. Do not eat, smoke or chew gum while working.

4. **Clean as you work**. Be sure to wet clean the areas you are working on as you go along. Though it will be necessary to clean the entire house at the end of the project, it is important to clean as you work in order to keep lead-contaminated dust from spreading. Clean using a good household detergent. Rinse your cleaning utensils in clean water.

5. **Proper disposal**. When the work is done, mist the plastic sheeting with water to keep down the dust. Roll the plastic sheet up, keeping the dirty side in. Pick up any paint chips or other debris that may have fallen elsewhere. Be sure to place all disposable items used in the repair and clean up into plastic waste bags. The bags must be tightly sealed and properly can be disposed of with the household trash. Once the bags are sealed, do not reopen them.

6. **Have dust sampling done**. You should have dust sampling done after all renovations, painting, maintenance and cleaning activities. The results of this test will tell you if your work practices and final cleaning have been effective at removing lead-contaminated dust. Since lead dust levels in the home may change over time, it is strongly suggested that you perform dust testing periodically to help safeguard your family. If lead-contaminated dust levels begin to rise, re-inspect the home for deteriorating paint, repair where necessary repeating the steps outlined in this fact sheet, and be sure to wet clean thoroughly.

*Check with your State lead program to make sure that there is no regulation prohibiting this in your state.

Handout #4
Ongoing Monitoring and Maintenance

Take the following steps to make sure that paint is not deteriorating in your home and creating lead-contaminated dust and paint chips. This will help prevent children from being lead poisoned.

1. Regularly Check Repairs for Deterioration, Paint Chips, and Dust

Property owners should regularly monitor painted surfaces where maintenance or improvements were performed. Check to see if:

- New evidence of deterioration or paint failure is present.
- The cause of the problem was corrected.
- Lead dust hazards are present. Important: This can only be done by dust wipe sampling.

2. Maintain Surfaces and Thoroughly Clean

Then:

- Perform repairs, as needed, to maintain surfaces in a smooth and cleanable condition using safe work methods; and
- Clean the area thoroughly using safe cleaning practices.

3. Methods of Monitoring

Follow the these steps to check your work:

- **Conduct Visual Check**. Look for deterioration, paint failure, dust and paint chips.
- **Test for Lead Dust**. Have dust wipe samples taken to check for dust that may be contaminated with lead. A test is needed to determine when dust contains harmful amounts of lead.

4. When to Monitor?

- **Annually**. Perform a visual check of past repairs and improvements involving painted surfaces.
- **During Unit Turnover or Routine Maintenance**. Perform a visual check of past repairs and improvements involving painted surfaces.
- **Every Two Years.** Get a dust wipe done at least every two years. This type of test is strongly recommended when a young child or pregnant women lives in the home.

5. Why Is It Important to Monitor and Maintain Work?

Monitoring and maintenance helps:

- Plan and implement maintenance tasks
- Protect occupants and neighbors, particularly children, from lead exposure
- Give owners, contractors, and residents a record of the condition of the unit

Appendix D
Glossary

Appendix D: Glossary

Abatement – Measures to permanently (at least 20 years) control lead-based paint or lead-based paint hazards.

Blank sample – A blank sample is a new, unused dust wipe that is sent to the laboratory to determine if the wipes are contaminated.

Chain-of-custody – The chain-of-custody includes all the people who handle a sample. To establish a "chain-of-custody," every person who handles the sample must sign and date a form.

Clearance examination – Clearance involves a visual assessment and dust sampling. It is performed following renovation and remodeling or hazard reduction activities to determine if a work site has been cleaned properly. HUD requires it after HUD-funded rehabilitation, lead hazard reduction, or other activities that involve the disturbance of painted surfaces.

Composite dust wipe samples – A composite dust wipe sample is a sample that holds up to four dust wipes in one container. Each wipe is called a sub-sample. A composite tells you the average of level of lead-contaminated dust across all the areas you sampled.

Detection limit – The detection limit is defined as the level below which the laboratory cannot report an accurate level of lead.

Deteriorated paint – Deteriorated paint is any paint that is not intact. Examples include chipped, peeling, flaking, chalking, or cracking paint.

Dust wipe sampling – Dust wipe sampling determines the levels of lead in dust in order to compare the levels to the Federal and/or State guidance. It involves wiping a surface with a moistened wipe following a specific protocol and sending the sample to a laboratory for analysis.

HUD-required clearance – HUD requires clearance in pre-1978 residential dwellings that receive Federal financial assistance or are sold by the Federal government after lead hazard reduction activities are performed in accordance with the regulation. (These lead hazard reduction activities may be performed in conjunction with initial or periodic unit inspections, rehabilitation, or maintenance.)

Interim controls – Set of measures to temporarily control lead-based paint hazards. Interim control methods must be completed by qualified workers using safe work practices. Follow-up monitoring is needed.

Lead abatement – A procedure to address lead-based paint permanently (for at least 20 years) by making the lead-based paint inaccessible or by removing it. Examples include component removal, paint removal, enclosure, and encapsulation.

Lead paint inspector – Lead paint inspectors evaluate the painted surfaces in a unit to determine which surfaces contain lead-based paint. They measure the concentration of lead in paint on a surface-by-surface basis and present a report that identifies the location and concentration of lead for each component tested.

Appendix D: Glossary

Lead sampling technician – A lead sampling technician has successfully completed training to perform lead sampling, including performing a visual assessment and collecting dust wipe samples.

Lead-based paint – Lead-based paint is paint that contains lead above a certain amount. The federal guidelines for lead-based paint are: (1) greater than or equal to 1 mg/cm^2 of lead; and (2) greater than or equal to 0.5% [5,000 parts per million (ppm)] lead by dry weight.

Lead-contaminated dust – Lead-contaminated dust is dust that contains lead above a specific threshold. HUD and EPA have different thresholds. The HUD Standards are 40 $\mu g/ft^2$ (for floors), 250 $\mu g/ft^2$ (for interior window sills), and 800 $\mu g/ft^2$ (for window troughs). The EPA guidance is 100 $\mu g/ft^2$ (for floors), 500 $\mu g/ft^2$ (for interior window sills), and 800 $\mu g/ft^2$ (for window troughs).

Lead-contaminated soil – Lead-contaminated soil is soil that contains lead above a specific threshold. The thresholds are 400 ppm (if soil is in a play area used by children) and 2000 ppm (for other bare soil).

National Lead Laboratory Accreditation Program (NLLAP) – The NLLAP accredits laboratories to perform lead related analyses and provides the public with a list of its accredited laboratories for analyzing lead in dust samples.

Paint chip sampling – Paint chip sampling involves taking a sample of paint to determine whether areas of paint contain lead-based paint.

Paint testing – Paint testing involves evaluating the painted surfaces in a unit to show how much lead is in the paint. It measures the concentration of lead in paint on a surface-by-surface basis. It can be done in a laboratory or by using an XRF analyzer.

Post-renovation clearance – After renovation, remodeling, or repainting, it is appropriate to perform clearance in the work site to confirm that the dwelling unit was adequately cleaned and that the renovation work has not created any lead hazards.

Risk assessor – A risk assessor evaluates dwelling units to identify all lead hazards. The evaluation involves a visual examination as well as dust, soil, and paint chip sampling. The risk assessor then writes a report that describes the nature, severity, and location of all identified lead-based paint hazards. A risk assessor also provides options for remediation of each identified lead hazard.

Single-surface sampling – Single-surface dust wipe samples contain one wipe. It measures the lead dust level from a specific surface such as a floor or an interior window sill.

Soil sampling – Soil sampling involves testing soil samples for lead to determine if the lead levels exceed Federal and/or State guidance for hazardous levels of lead in soil.

Spiked sample – A spiked sample is a dust wipe sample that contains a known weight of lead-based paint dust. Spiked samples are used to ensure adequate quality control of the digestion process at the laboratory. The spiked samples are sent to the laboratory to see if it reports back accurate results.

Appendix D: Glossary

Templates – Templates are used to outline the measured area that is to be wiped for a dust sample. Templates are usually made of wood, plastic, or metal.

Visual assessment – A visual assessment determines if a dwelling unit is clear of certain conditions that can cause exposure to lead, such as obvious dust, paint chips, painted debris, and deteriorated paint.

Window sill – A trim piece that extends from the bottom of the window frame and acts as a narrow shelf.

Window trough – A window trough is the area between the interior window sill and the frame of the storm window where the bottom sash rests when closed (also called a window well).

XRF – An electronic instrument often used by lead paint inspectors to test for lead in paint.

Appendix E
Answers to Exercises

Appendix E

Answers to Attachment 4-C: Interpreting Laboratory Results

- **Instructions:** The purpose of this activity is to test your ability to verify the results received from the laboratory, compare these results to the clearance guidance levels, and interpret the results. Using the following excerpt from a Dust Sampling Results Form, check the laboratory's calculation of the weighted lead-dust sample. (Note: the numbers used in this exercise have been simplified to facilitate calculations).

Sample #	Location	Surface	Dimensions of Sample Area (ft^2)	Total Lead (µg)	$µg/ft^2$
92-1	Upstairs bedroom	Floor	1.00	23	23
92-2	Upstairs bedroom	Interior window sill	0.50	150	300
92-3	Kitchen – front window	Interior window sill	0.50	260	130

1. Check the results (µg Lead/g) for each sample. If the results are incorrect, provide the correct results in µg Lead/ft^2.

   92-1: 23/1 = 23 - correct
   92-2: 150/0.50 = 300 - correct
   92-3: 260/0.50 = 520 - incorrect

2. After verifying the laboratory's results, compare these results to the appropriate clearance guidance. Did the individual samples pass or fail the clearance test?

Guidance for Lead-Contaminated Dust
♦ Floors: 100 µg/ft^2
♦ Interior window sills: 500 µg/ft^2
♦ Window trough: 800 µg/ft2

92-1: Result: **23** Clearance Guidance: **100** Pass or Fail? **Pass**

92-2: Result: **300** Clearance Guidance: **500** Pass or Fail? **Pass**

92-3: Result: **520** Clearance Guidance: **500** Pass or Fail? **Fail**

Appendix E

Answers to Attachment 5-B: Scenarios

Scenario #1: You just received a call from Mrs. Green to perform an examination of her home. Mrs. Green tells you that her home was built in 1952. She has just had her kitchen and two bathrooms remodeled and she is concerned about that her home was properly cleaned after the remodeling was done.	
a. Are there any additional questions that you want to ask the owner?	*What kinds of work were done in the kitchen and bathrooms?*
b. What protocol will you follow (post-renovation clearance, HUD-required, or other sampling)?	*Post-renovation clearance.*
c. Where will you conduct the visual assessment? What will you look for?	*In the work area (the kitchen and the bathroom) and the hallways leading to those areas. Look for dust, debris, and paint chips. If you see deteriorated paint, tell Mrs. Green that this is a potential hazard and give her a handout on how to fix it safely.*
d. Will you take dust wipe samples? In what rooms? On what surfaces?	*Yes. In the kitchen, two bathrooms. If the hall had dust and debris tracked in, test there too. On floors. On windows only if work was done on windows.*
Scenario #2: The owner of Parkview apartments asks you to do a clearance examination of a unit in his building. He tells you that the unit receives HUD Section 8 assistance and he just did some paint stabilization in the unit to meet HUD Housing Quality Standards. He says he needs to pass clearance before his tenant moves in.	
a. Are there any additional questions that you want to ask the owner?	*Do we need to perform clearance on the unit or just a portion of the unit? (Note: Because this is Section 8 assistance, we are not talking about rehabilitation under $5000 or maintenance activities, therefore the answer should be unit-wide clearance.)*
b. What protocol will you follow?	*HUD-required Clearance*
c. Where will you conduct the visual assessment? What will you look for?	*Throughout the entire unit. Dust, debris, paint chips, and deteriorated paint.*
d. Will you take dust wipe samples? In what rooms? On what surfaces?	*If the unit passes the visual assessment, then take dust samples. Take it in up to four rooms in the unit. Take it on floors and windows. If paint stabilization included the windows, alternate samples on sills and troughs.*
Scenario #3: Mr. and Mrs. Johnson are moving into a new home. They have a two year old son and Mrs. Johnson is expecting a second child in three months. Before they move in, they wan to make sure their home is safe for their children. They ask you to perform an examination of their home.	
a. Are there any additional questions that you want to ask the owners?	*Do they want to hire a risk assessor? Do they want to clean the unit before the exam?*
b. What protocol will you follow?	*Other lead sampling examination*
c. Where will you conduct the visual assessment? What will you look for?	*Throughout the dwelling. Look for dust, debris, paint chips, and deteriorated paint.*
d. Will you take dust wipe samples? In what rooms? On what surfaces?	*Yes. In four rooms most likely to have children in them. Floor and windows. Alternate sills and troughs.*

Appendix E

Answers to Attachment 6-A: Answering Client Questions

You have just given your client the clearance examination report and she has a lot of questions for you. You have been trained to answer some of the questions, but several questions go beyond the scope of your training. Using what you have learned so far in this course, respond to each of the questions in the left-hand column.

1. Decide whether your training as a clearance technician qualifies you to answer the question and check either "yes" or "no."
2. In the far right column, provide an appropriate response by either answering the question or referring your client to the appropriate source for further information.

Question	Have I been trained to provide an answer?		If you checked "yes," provide an answer. If you checked "no," provide a source for further information.
	Yes	No	
1. What kind of cleaning will remove the lead-contaminated dust?		✓	Refer client to the factsheet that describes proper cleaning procedures. (See Handout #2 in Appendix B.)
2. Where is the dust coming from?		✓	The dust may be left over from a poor cleanup job but it may come from other sources. Other sources of dust can be located by a risk assessor, who is specifically trained to identify sources of lead dust.
3. If lead contaminated dust was found to be below Federal guidance, does that mean that my property is "lead-free?"	✓		No, lead-based paint may still be present. Passing the clearance examination only shows that no lead-contaminated dust (and soil, if tested) was found at the time clearance was conducted. Further, lead dust may become a hazard in the future.
4. The results indicated that lead was undetectable, is my property "lead-free?"	✓		No, lead-based paint may still be present. If lead in samples was found to be "undetectable," then either no lead exists or there is so little in the sample as to be undetectable. Further, if lead-based paint exists in the dwelling, lead dust may become a hazard in the future.
5. Do I have to have clearance testing done again?	✓		The client does not have to have it re-tested but it is recommended. Ideally, the client should have the areas that failed the clearance examination re-cleaned and re-tested to make sure the area is safe for occupants to return. If the clearance follows HUD-funded work, additional cleaning and clearance are required.
6. What should I do about the lead-contaminated dust?	✓		The unit should be re-cleaned to remove the dust and then re-tested. (See Handout #4 in Appendix B for guidance on cleaning procedures.) If the dust is from an unknown source, consider having a risk assessment done.